

## 7. RECOMMENDED PLAN AND ASSOCIATED COSTS

### 7.1 Introduction

Investment in study airports will be needed to enable airports in the statewide system to meet the facility and service objectives outlined in Georgia Statewide Aviation System Plan (GSASP). This investment will elevate performance of the state airport system relative to the established objectives. Projects identified through the system plan's analyses are those considered desirable to raise the performance bar for Georgia's airport system.

Development costs presented in this chapter are estimated for each study airport by comparing existing airport facilities to facility and service objectives identified in the GSASP. Objectives used in this analysis are applicable to each airport's recommended level in the state system. This chapter provides an estimated development cost associated with recommended projects and actions to meet the facility and service objectives identified in **Chapter 6**.

Projects and costs from GDOT's 2012 Statewide Airfield Pavement Management Study are included, as are costs associated with airports gaining control over their Runway Protection Zones (RPZs). Costs associated with additional or replacement airports are also summarized.

Also presented in this chapter are projects and costs identified in current airport-specific Capital Improvement Plans (CIPs), as they have been submitted to GDOT; CIP costs are shown in each airport's individual airport Report Card, which are presented in **Appendix B**. Although CIPs are not part of the overall system plan recommendations, projects and costs from airport CIPs were considered in this analysis to provide a holistic view of total funding needs over the next five years. It is important to note that CIP requests submitted by Georgia airports have not been reviewed for their funding eligibility, feasibility, or relative priority. Airport-specific CIP submissions often reflect an optimum development scenario for each airport, reflecting desired as opposed to required development.

As part of this step in the system planning process, projects from the GSASP, all CIPs, the Statewide Airfield Pavement Management Study, and RPZ mitigation analysis were reconciled against each other to avoid duplication of projects and costs, as possible. The final total development cost for each airport is a compilation of costs from the sources noted. The recommended plan identifies anticipated near term (five-year) financial needs for Georgia's airport system. It is likely that over the next five years, Georgia airports will have the need for projects and costs not captured in this plan.

The GSASP is a high-level planning document that provides general recommendations for development of the state's airports. Actual airport development depends on implementation by the local airport sponsor, with support of state and/or federal agencies. It is recognized that projects identified in the GSASP are not all-encompassing, and there will likely be needs that are not identified in the plan. Also, cost estimates for the GSASP projects have been developed to a general planning, not engineering, level of detail. Costs to implement these projects are based on current airport development costs that are typical in Georgia. It is possible that costs to implement projects identified in the system plan could vary when projects are bid for construction.

It is important to note that the inclusion of a project in the system plan does not constitute a commitment on the behalf of GDOT or the FAA to fund any of the identified projects. Projects that are eligible for funding may require additional steps before they can be implemented. For example, projects that are implemented with FAA funding must be on the airport's approved Airport Layout Plan (ALP). In some cases, system planning projects may require an environmental assessment, as required by the National Environmental Policy Act and Special Purpose Laws. Other projects may also require FAA airspace review prior to implementation.

## 7.2 System Plan Recommendations Summary

This update to Georgia’s system plan has taken a comprehensive look at how the system is performing based on current conditions. The evaluation identified various actions and projects that should be considered to improve the performance of the Georgia airport system; these actions are summarized in this section.

### 7.2.1 NPIAS and Unclassified Airports

A review of current airport roles was conducted as part of the GSASP update, producing the following conclusions:

**NPIAS Airport Recommendations:** The Georgia airport system consists of 102 commercial and general aviation airports. Of that total, 96 are included in the National Plan of Integrated Airport Systems (NPIAS). Inclusion of an airport in the NPIAS indicates the importance of the airport to the federal airport system, and inclusion makes the airport eligible to compete for FAA funding. Typically, airports with a public sponsor are eligible to be included in the NPIAS if the airport has at least 10 based aircraft and the airport is at least 30 miles from the closest NPIAS airport. There are other factors that are considered by FAA, but distance and activity are the two primary factors, along with a willing and able public airport sponsor.

Of the six Georgia airports that are not currently in the NPIAS, Lumpkin County-Wimpy’s Airport meets FAA criteria for NPIAS inclusion. However, the cost of upgrading this airport to meet federal standards would exceed the benefit. The only other airport that meets the distance criteria for NPIAS inclusion is Marion County; this airport currently has no based aircraft. None of the current non-NPIAS system airports are recommended for NPIAS inclusion. Non-NPIAS airports in the Georgia system include:

- Marion County Airport
- Lumpkin County-Wimpy’s Airport
- Davis Field Airport
- Hawkinsville-Pulaski County Airport
- Spence Airport
- Treutlen County Airport

There are, however, other NPIAS recommendations stemming from the system plan update. St. Marys Airport closed in the Fall of 2017; the GSASP recommends that a NPIAS-eligible replacement airport be constructed as a Level II airport in the Georgia system. The GSASP update also recommends an additional general aviation airport north of the Atlanta metropolitan area in the Dawson/Forsyth counties area. This airport should be included in the NPIAS, and should be a Level III airport in the Georgia system.

**Unclassified Airport Recommendations:** As part of their ASSET Study, FAA classified airports in the federal airport system as National, Regional, Local, Basic, and Unclassified. In general, airports in the Unclassified category have slipped below the NPIAS criteria of having 10 based aircraft. While FAA has not confirmed if Unclassified airports will continue to receive FAA funding, it is possible that they may not. Therefore, if circumstances at Unclassified Georgia airports change, their classification should also change. The GSASP notes that of the Unclassified airports, Wrens Memorial Airport currently has nine based aircraft, but is within 30 minutes of another NPIAS airport. Nevertheless, it could be considered for NPIAS inclusion as a Basic airport because it was previously in the NPIAS. The other Unclassified Georgia airports should be monitored to identify changes in their based aircraft levels to determine if they should be moved out of the Unclassified category:

- Turner County Airport
- Lower Chattahoochee Regional Airport



- Homerville Airport
- Jekyll Island Airport
- Millen Airport
- Brantley County Airport
- Sylvester Airport

### 7.2.2 Recommendations from Additional Study Research

The GSASP researched three additional areas: airport control of RPZs, airports with through-the-fence (TTF) operators, and communities surrounding system airports that have adopted controls to protect airports.

- **RPZ Recommendations:** The GSASP investigated 280 RPZs for all study airports to determine which are under airport control and which are devoid of development and/or activities that are in conflict with FAA guidelines. Only 30 percent of all 280 RPZs are now under airport control. Each airport's RPZ information is presented in the individual airport reports in **Appendix B**; these reports show actions needed to preclude incompatible development from each RPZ. As airports undertake updates to their airport master plan and/or ALP, these locally generated plans should include feasible steps to resolve incompatible development in each RPZ and to gain control of each RPZ.
- **TTF Recommendations:** To be in full compliance with FAA guidelines and airport grant assurances, airports in Georgia should not host/enable TTF operations. The 17 system airports that have TTF activities should take steps to end these operations. At a minimum, these airports should:
  - Have written agreements in place with all operators.
  - Enforce and collect rates and charges from these operators that are consistent with similar charges for on-airport tenants.
- **Land Use Recommendations:** Airports, through their FAA grant assurances, are charged with promoting compatible land use in the airport environs. The system plan identified 196 local governments that are adjacent to the 102 system airports. Research shows that only 20 percent of all 196 local governments have taken steps to adopt airport-specific zoning that protects an airport. More education and work is needed to increase the number of local governments in Georgia that are protecting airport resources, including stronger partnerships and educational efforts that involve local governments that surround the system airports. This inventory effort also included drafting a template ordinance for airports to either review/update their existing controls or institute new controls for those local governments without current airport zoning. Follow-on efforts are needed to:
  - Determine if existing statutes that are in place are FAA compliant and enable the airports to meet their grant assurances.
  - Identify recommendations/actions that are appropriate for communities that do not have airport-specific zoning/land use controls.

### 7.2.3 Recommendations for System Performance Measures

The Georgia airport system was evaluated using a set of comprehensive measures that helped show how the system is currently performing in terms of accessibility to certain types of airport facilities. High-level findings/recommendations related to the results of the system evaluation follow.

- **60-minute proximity to an airport with scheduled commercial airline service:** It is unlikely, but not impossible, that Georgia will attract schedule airline service to additional airports. In the past few years, the airport serving Athens lost service, and scheduled airline service to Macon has been sporadic. As airlines continue to look for ways to increase revenue and decrease costs, communities

whose service is provided by a single carrier could find themselves at risk. The GSASP recommends that all commercial airports in Georgia take every action available to them to urge their communities to patronize the local commercial airport; this is the best way to help underpin a solid foundation for Georgia’s commercial airport system.

- **30-minute proximity to an airport:** Georgia is served by an extensive and well-developed system of airports. A review of the system showed that there are few areas of the state that are beyond the 30-minute service area for one or more system airports. All areas that are beyond an existing service area were examined to determine if there is a need for additional system airports. The review showed that almost all areas beyond an existing 30-minute service area have one or more of the following characteristics: they have limited population/employment; there are rivers, wetlands, or other areas prone to flooding; there are areas that are designated wildlife management areas, parks, or other recreational areas. The GSASP recommends the following:
  - Plans should proceed for building a replacement for the Griffin-Spaulding County Airport.
  - Plans should proceed to develop a replacement for the St. Marys Airport in southeast Georgia.
  - An additional system airport should be pursued for the Dawson/Forsyth counties area.
- **30-minute proximity to an airport with any published instrument approach:** To meet the system plan objective that all Level II and Level I should have a published approach, the following airports should have a published approach. The existing runway length and/or other factors at some of these airports, however, could limit the feasibility of such an approach.
  - Turner County Airport
  - Marion County Airport
  - Lower Chattahoochee Regional Airport\*
  - Lumpkin County-Wimpy’s Airport\*
  - Gilmer County Airport
  - Davis Field Airport\*
  - Hawkinsville-Pulaski County Airport\*
  - Spence Airport
  - Treutlen County Airport\*
  - Sylvester Airport
  - Roosevelt Memorial Airport
  - Wrens Memorial Airport\*

*\* These airports have a current runway length that is less than 3,200 feet. FAA typically recommends that an airport have a runway length of at least 3,200 feet to support a published approach.*

- **45-minute proximity to an airport with an approach that provides vertical guidance:** GSASP objectives call for all Level III airports to have an approach that is served by both lateral and vertical guidance. All Level III airports meet this objective so there are no additional recommendations for this measure.
- **30-minute proximity to an airport with on-site weather reporting equipment (AWOS/ASOS):** System objectives indicate that all Level III and Level II airports should have on-site weather reporting equipment. To meet this objective, it is recommended that the following airports be equipped with on-site weather reporting equipment:
  - Wright Army Airfield (Fort Stewart)/MidCoast Regional Airport
  - Cook County Airport

- Dawson Municipal Airport
- Macon Downtown Airport
- **30-minute proximity to an airport with one runway at least 4,000 feet long:** To meet system plan objectives, as demand warrants and airport conditions support, the following airports should have a 4,000-foot runway:
  - Marion County Airport
  - Lower Chattahoochee Regional Airport
  - Lumpkin County-Wimpy's Airport
  - Gilmer County Airport
  - Davis Field Airport
  - Hawkinsville-Pulaski County Airport
  - Jekyll Island Airport
  - Madison Municipal Airport
  - Treutlen County Airport
  - Wrens Memorial Airport
- **30-minute proximity to an airport with one runway at least 5,000 feet long:** To meet system plan objectives, as demand warrants and airport conditions support, the following airports should have a 5,000-foot runway. It is worth noting that the Griffin-Spaulding County Airport is currently being redeveloped at a new site; when the replacement airport is opened, the plan is for this airport to have runway that is at least 5,000 feet long.
  - Dawson Municipal Airport
  - Griffin-Spaulding County Airport
  - Macon Downtown Airport
  - Washington-Wilkes County Airport
- **45-minute proximity to an airport with one runway at least 5,500 feet long:** To meet system plan objectives, as demand warrants and airport conditions support, the following airports should have a 5,500-foot runway.
  - Blairsville Airport
  - Louisville Municipal Airport
- **Primary runways meeting a Pavement Condition Index (PCI) objective of 70:** Pavement conditions for the primary runway at each of the study airports change with weather, underlying surface conditions, and use. Therefore, which airports meet a PCI objective of 70 and which do not are always changing. Based on data collected for the system plan, the following airports reportedly do not meet the PCI objective of 70 for their primary runway; it is recommended that steps be taken to improve the condition of the primary runway at these airports. When results from Georgia's on-going Airfield Pavement Management Study are published in 2019, the results shown below may change.
  - Cartersville Airport
  - Hawkinsville-Pulaski County Airport
- **Primary runways meeting Runway Safety Area (RSA) objectives:** FAA design standards, based on the airport's ARC, dictate the RSA dimensions for each runway end. Based on the conditions reported at the time of the GSASP data collection effort, the plan recommends that the following airports take steps to improve the dimensions of their RSAs to meet their applicable FAA requirements:
  - Cook County Airport
  - Bacon County Airport

- Fulton County Airport-Brown Field
- Tom B. David Field Airport
- Cartersville Airport
- Polk County Airport-Cornelius Moore Field
- Lower Chattahoochee Regional Airport
- Gilmer County Airport
- Fitzgerald Municipal Airport
- Jekyll Island Airport
- Jesup-Wayne County Airport
- Barwick Lafayette Airport
- Louisville Municipal Airport
- Quitman Brooks County Airport
- Treutlen County Airport
- **Applicable primary runways meeting runway/taxiway separation standards:** Airports with a full or partial parallel taxiway have separation standards between runway and taxiway centerlines that are determined by the ARC assigned to the runway. Not all system airports have a full or a partial parallel taxiway, so the objective for meeting the runway and taxiway separation standard is not applicable for all airports. System plan review showed that the airports below do not currently meet their applicable separation standards. As possible, these airports should take steps to resolve this deficiency. It is worth noting that the Griffin-Spaulding County Airport is in the process of relocating to a new site, which will resolve the deficiency.
  - Cobb County International Airport-McCollum Field
  - Early County Airport
  - Fitzgerald Municipal Airport
  - Griffin-Spaulding County Airport
  - Macon Downtown Airport
  - Baldwin County Airport
  - Quitman Brooks County Airport

### 7.3 Summary of Airport Facility and Service Objective Recommendations

The GSASP established facility and service objectives for each Georgia airport by airport level. The following sections provide information on recommendations by objective that would be needed for each airport to meet all of their plan-related objectives.

The facility and service objectives for each of the four levels are presented in **Table 7-1**, along with the current system performance for airports in each level. A cost estimate was not developed as part of the system plan’s analysis for some deficiencies identified in the table; for example, a high percentage of system airports are reported as not having FBOs, aircraft maintenance services, or rental cars. These services are demand-driven and most often provided by third-party sources; therefore, costs to meet these service-related objectives were not included in the system plan’s cost estimating task.

TABLE 7-1: SUMMARY OF FACILITY AND SERVICES OBJECTIVE PERFORMANCE BY LEVEL

Airport Facility/ Service	Level III - Commercial Service		Level III - General Aviation		Level II		Level I		Statewide
	Objective	Percentage Meeting Objective	Objective	Percentage Meeting Objective	Objective	Percentage Meeting Objective	Objective	Percentage Meeting Objective	Percentage Meeting Objective
<b>Airside Facilities</b>									
Runway Length	5,500'	100%	5,500'	94%	5,000'	86%	4,000'	67%	84%
Runway Width	100'	100%	100'	97%	100'	59%	75'	80%	81%
Taxiway	Full parallel	100%	Full parallel	86%	Full parallel	76%	Turnarounds at each end; Full parallel desirable	53%	75%
Primary Runway Pavement Condition	PCI of 70 or greater	100%	PCI of 70 or greater	97%	PCI of 70 or greater	100%	PCI of 70 or greater	97%	98%
Primary Runway Pavement Strength	30,000 lbs SW	100%	20,000 lbs SW	97%	15,000 lbs SW	97%	12,500 lbs SW	83%	93%
	120,000 lbs DW		50,000 lbs DW		30,000 lbs DW				
Approach	Precision	100%	Near precision	100%	Non-precision	100%	Non-precision	60%	88%
Lighting System	HIRL	88%	HIRL (precision approach) or MIRL (other approach)	80%	MIRL	100%	MIRL	87%	88%
	MITL	100%	MITL	100%	MITL	79%	MITL	50%	79%
	Approach lights	100%	Approach lights	71%	Not an objective	N/A	Not an objective	N/A	77%
NAVAIDs/Visual Aids	Rotating beacon	100%	Rotating beacon	100%	Rotating beacon	100%	Rotating beacon	83%	95%
	Segmented circle	100%	Segmented circle	91%	Segmented circle	97%	Segmented circle	87%	92%
	Wind cone	100%	Wind cone	100%	Wind cone	100%	Wind cone	100%	100%
	PAPIs	75%	PAPIs	91%	PAPIs	86%	PAPIs	63%	80%
Weather Reporting	AWOS or ASOS	100%	AWOS or ASOS	97%	AWOS or ASOS	90%	Not an objective	N/A	68%
Airfield Signage	Runway hold position signs	100%	Runway hold position signs	60%	Runway hold position signs	41%	Not an objective	N/A	40%
	Location signs		Location signs		Location signs				
	Guidance signs		Guidance signs		Guidance signs				
Fencing	Full perimeter	100%	Full perimeter	34%	Full perimeter	17%	Operations area; Full perimeter desirable	33%	34%





TABLE 7-1: SUMMARY OF FACILITY AND SERVICES OBJECTIVE PERFORMANCE BY LEVEL

Airport Facility/ Service	Level III - Commercial Service		Level III - General Aviation		Level II		Level I		Statewide
	Objective	Percentage Meeting Objective	Objective	Percentage Meeting Objective	Objective	Percentage Meeting Objective	Objective	Percentage Meeting Objective	Percentage Meeting Objective
<b>Other Facilities</b>									
Hangar Aircraft Storage	70% of based aircraft fleet	88%	70% of based aircraft fleet	80%	60% of based aircraft fleet	90%	60% of based aircraft fleet	77%	82%
Tie-downs	30% of based aircraft fleet plus an add'l 75% for transient aircraft	63%	30% of based aircraft fleet plus an add'l 75% for transient aircraft	63%	40% of based aircraft fleet plus an add'l 50% for transient aircraft	59%	40% of based aircraft fleet plus an add'l 25% for transient aircraft	67%	63%
Terminal/	2,500 sq ft including restrooms, conference area, and pilots' lounge	100%	2,500 sq ft including restrooms, conference area, and pilots' lounge	86%	1,500 sq ft restrooms, conference area, and pilots' lounge	55%	750 sq ft enclosed space with restrooms	30%	62%
Administration									
Auto Parking	1 space for each based aircraft plus an add'l 50% for visitors/employees	63%	1 space for each based aircraft plus an add'l 50% for visitors/employees	26%	1 space for each based aircraft plus an add'l 50% for visitors/employees	24%	1 space for each based aircraft plus an add'l 25% for visitors/employees	37%	31%
<b>Services</b>									
Fuel	AvGas and/or Jet fuel	100%	AvGas and/or Jet fuel	100%	AvGas and/or Jet fuel	100%	AvGas, Jet fuel as required	57%	87%
FBO	Full service	100%	Full service	91%	Full service	90%	Limited service	30%	74%
Maintenance	Full service	100%	Full service	83%	Limited service	90%	Not an objective	N/A	88%
Rental Cars	Available	100%	Available	93%	Available	66%	Not an objective	N/A	82%

Source: Jviation





The deficiencies identified in **Table 7-1** provide the foundation for final system recommendations as well as for recommendations for individual study airports; associated costs are presented in this chapter. Airport-specific recommendations to meet applicable facility/service objectives are provided the airport Report Cards included in **Appendix B**.

## 7.4 Cost Estimating

The methodology used to estimate costs for projects in the recommended plan included:

- Compare existing facilities at each individual airport to facility/service objectives identified for each airport’s recommended system level.
- Identify specific airport projects or actions needed to reach the airport’s applicable objectives.
- Estimate project quantities.
- Use estimated unit costs, applying these costs to specific airport needs/projects.

In this process, costs were first identified on an airport-by-airport basis, and then compiled at the system level by project category. Costs presented in this chapter are based on unit costs for each type of facility. Unit costs used in the system plan’s analysis were obtained from current airport construction costs in Georgia. Unit costs were increased to allow for contingency expenses related to planning, engineering, and design. Importantly, the costs identified in this chapter will vary based on site-specific conditions that may require significant site preparation efforts or other mitigation to allow for construction.

Wherever possible, actual costs were used as a baseline in the development of unit costs. The range of airports and their specific settings in the state may cause actual costs to vary. Further, costs presented in this chapter are based on 2017 US dollars without increases to reflect future inflation. If a project identified by the system plan is already included in an airport’s individual CIP, the CIP cost for that project was used in this analysis.

Costs associated with GSASP recommendations are aggregated for the following categories (with detailed sub-components included in parenthesis):

- Apron (Tie-downs)
- Auto Parking & Ground Access (General Aviation Auto Parking)
- Fuel
- Hangars (Hangared Aircraft Storage)
- Lighting, NAVAIDs, & Signage (Runway Lighting, Taxiway Lighting, ALS, Approach Type, Weather Reporting, Rotating Beacon, VGSI, Segmented Circle, Wind Cone, Airfield Signage)
- Pavement Maintenance (Primary Runway PCI)
- Runways (Runway Width, Runway Length)
- Safety (Primary Runway Safety Area, Runway to Taxiway Separation)
- Security (Fencing)
- Taxiways
- Terminal Buildings (General Aviation Terminal/Administration)

Pavement project costs associated with the 2012 GDOT Statewide Airfield Pavement Management Study are aggregated for the following categories:

- Runways
- Taxiways
- Apron

CIP project costs are aggregated by the following categories:

- Runways
- Taxiways
- Safety
- Lighting, NAVAIDs, & Signage
- Apron
- Hangars
- Terminal Buildings
- Fuel
- Auto Parking & Ground Access
- Security
- Utilities & Drainage
- Equipment
- Other-Buildings
- Other/Miscellaneous
- Acquisitions, Relocations, & Easements
- Plans & Studies

RPZ costs are aggregated by the following categories:

- Land Acquisition
- Residential/Commercial Property Acquisition and Relocation
- Road Relocation
- Railroad Relocation

Additional/Replacement airport costs are aggregated by the following categories:

- Additional Airports
- Replacement Airports

In order to present all of the above categories in a single, concise table and/or chart for combined development costs across all plans and analyses, the number of categories were collapsed into the following simplified categories:

- Acquisitions, Relocations, & Easements
- Apron
- Auto Parking & Ground Access
- Equipment
- Fuel
- Hangars
- Lighting, NAVAIDs, & Signage
- New/Replacement Airport
- Pavement Maintenance
- Plans & Studies
- Runways & Taxiways
- Safety & Security
- Terminals & Other Buildings
- Utilities, Drainage, & Other/Misc.

All projects contributing to the cost estimates presented in this chapter are available in the airport-specific Report Cards presented in **Appendix B**, including all projects and their associated costs. The Report Cards are organized by project source (System Plan, CIP, Statewide Airfield Pavement Management Study, RPZ mitigation, or additional/replacement airport).

#### 7.4.1 Costs Associated with System Plan Recommendations

System plan cost estimates, by project category and airport level, are summarized in **Table 7-2** and **Table 7-3**. The totals by airport level are identical in **Table 7-2** and **Table 7-3**.

**Table 7-2** presents a summary of GSASP costs by detailed project category level.

TABLE 7-2: SUMMARY OF SYSTEM PLAN COSTS BY DETAILED PROJECT CATEGORY AND LEVEL

Facility/Service Item	Level III Commercial Service	Level III	Level II	Level I	Total	Percentage of Total
Runway Length	\$0	\$3,500,000	\$6,807,541	\$41,703,400	\$52,010,941	10%
Runway Width	\$0	\$3,240,000	\$36,000,000	\$13,500,000	\$52,740,000	10%
Taxiway	\$0	\$31,420,000	\$32,475,000	\$30,630,000	\$94,525,000	17%
Primary Runway PCI	\$0	\$2,200,000	\$0	\$500,000	\$2,700,000	<1%
Primary Runway Safety Area	\$0	\$21,805,000	\$1,200,000	\$650,000	\$23,655,000	4%
Runway to Taxiway Separation	\$0	\$30,700,000	\$2,200,000	\$850,000	\$33,750,000	6%
Lighting System						
– Runway	\$0	\$4,090,000	\$0	\$1,440,000	\$5,530,000	1%
– Taxiway	\$0	\$0	\$3,070,000	\$4,100,000	\$7,170,000	1%
– Approach Lighting System	\$0	\$11,975,000	\$0	\$0	\$11,975,000	2%
Approach Type	\$0	\$0	\$0	\$720,000	\$720,000	<1%
Weather Reporting	\$0	\$300,000	\$1,015,000	\$0	\$1,315,000	<1%
Navigational Aids						
– Rotating Beacon	\$0	\$0	\$0	\$330,000	\$330,000	<1%
– VGSI	\$150,000	\$400,000	\$325,000	\$1,075,000	\$1,950,000	<1%
– Segmented Circle	\$0	\$150,000	\$0	\$200,000	\$350,000	<1%
– Wind Cone	\$0	\$0	\$0	\$0	\$0	0%
Airfield Signage	\$0	\$2,455,000	\$2,610,000	\$0	\$5,065,000	1%
Fencing	\$0	\$16,695,655	\$13,965,073	\$6,236,334	\$36,897,062	7%
Hangared Aircraft Storage	\$15,050,000	\$58,100,000	\$3,400,000	\$1,810,000	\$78,360,000	14%
Tie-downs	\$9,340,000	\$47,690,000	\$21,460,000	\$9,990,000	\$88,480,000	16%
General Aviation Terminal/Administration	\$0	\$1,432,500	\$11,007,500	\$5,161,300	\$17,601,300	3%
General Aviation Auto Parking	\$1,694,000	\$11,108,000	\$5,145,000	\$1,976,000	\$19,923,000	4%
Fuel	\$0	\$0	\$0	\$4,035,000	\$4,035,000	1%
FBO	\$0	\$0	\$0	\$0	\$0	0%
Maintenance	\$0	\$0	\$0	\$0	\$0	0%
Rental Cars	\$0	\$0	\$0	\$0	\$0	0%
<b>Total</b>	<b>\$26,234,000</b>	<b>\$247,261,155</b>	<b>\$140,680,114</b>	<b>\$124,907,034</b>	<b>\$539,082,303</b>	<b>100%</b>
<b>Percentage of Total</b>	<b>5%</b>	<b>46%</b>	<b>26%</b>	<b>23%</b>	<b>100%</b>	

Source: Jviation

Table 7-3 presents a summary of recommended GSASP costs by reduced/collapsed project category and level.

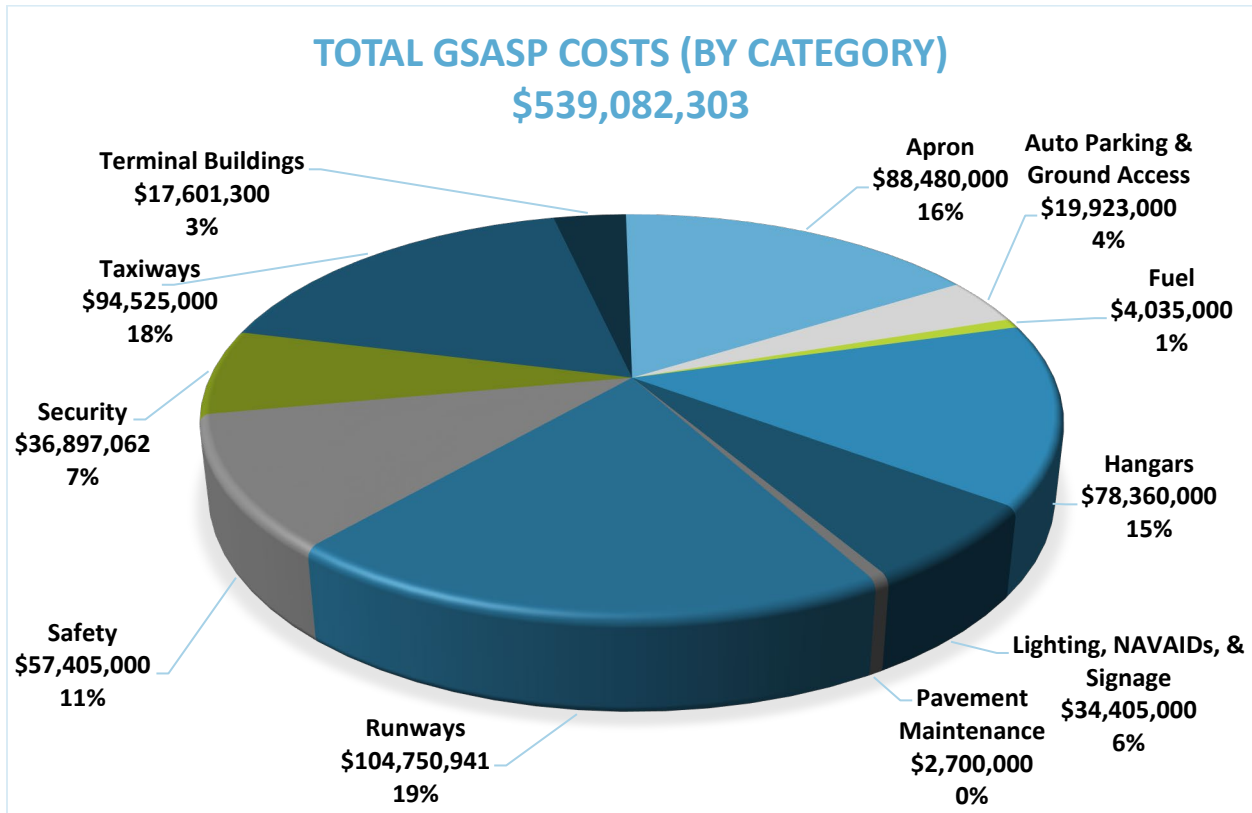
TABLE 7-3: SYSTEM PLAN COSTS SUMMARIZED BY PROJECT CATEGORY AND LEVEL

Project Category	Level III Commercial Service	Level III	Level II	Level I	Total	Percentage of Total
Aprons	\$9,340,000	\$47,690,000	\$21,460,000	\$9,990,000	\$88,480,000	16%
Auto Parking & Ground Access	\$1,694,000	\$11,108,000	\$5,145,000	\$1,976,000	\$19,923,000	4%
Fuel	\$0	\$0	\$0	\$4,035,000	\$4,035,000	1%
Hangars	\$15,050,000	\$58,100,000	\$3,400,000	\$1,810,000	\$78,360,000	15%
Lighting, NAVAIDs, & Signage	\$150,000	\$19,370,000	\$7,020,000	\$7,865,000	\$34,405,000	6%
Pavement Maintenance	\$0	\$2,200,000	\$0	\$500,000	\$2,700,000	1%
Runways	\$0	\$6,740,000	\$42,807,541	\$55,203,400	\$104,750,941	19%
Safety	\$0	\$52,505,000	\$3,400,000	\$1,500,000	\$57,405,000	11%
Security	\$0	\$16,695,655	\$13,965,073	\$6,236,334	\$36,897,062	7%
Taxiways	\$0	\$31,420,000	\$32,475,000	\$30,630,000	\$94,525,000	18%
Terminal Buildings	\$0	\$1,432,500	\$11,007,500	\$5,161,300	\$17,601,300	3%
<b>Total</b>	<b>\$26,234,000</b>	<b>\$247,261,155</b>	<b>\$140,680,114</b>	<b>\$124,907,034</b>	<b>\$539,082,303</b>	<b>100%</b>
<b>Percentage of Total</b>	<b>5%</b>	<b>46%</b>	<b>26%</b>	<b>23%</b>	<b>100%</b>	

Source: Jviation

Altogether, the costs associated with system plan recommendations for all project categories total approximately \$539 million. **Figure 7-1** illustrates the distribution of total estimated system plan costs by project category. As shown, the most significant costs for recommended system improvements relate to runway projects, followed by taxiways, apron, and hangars.

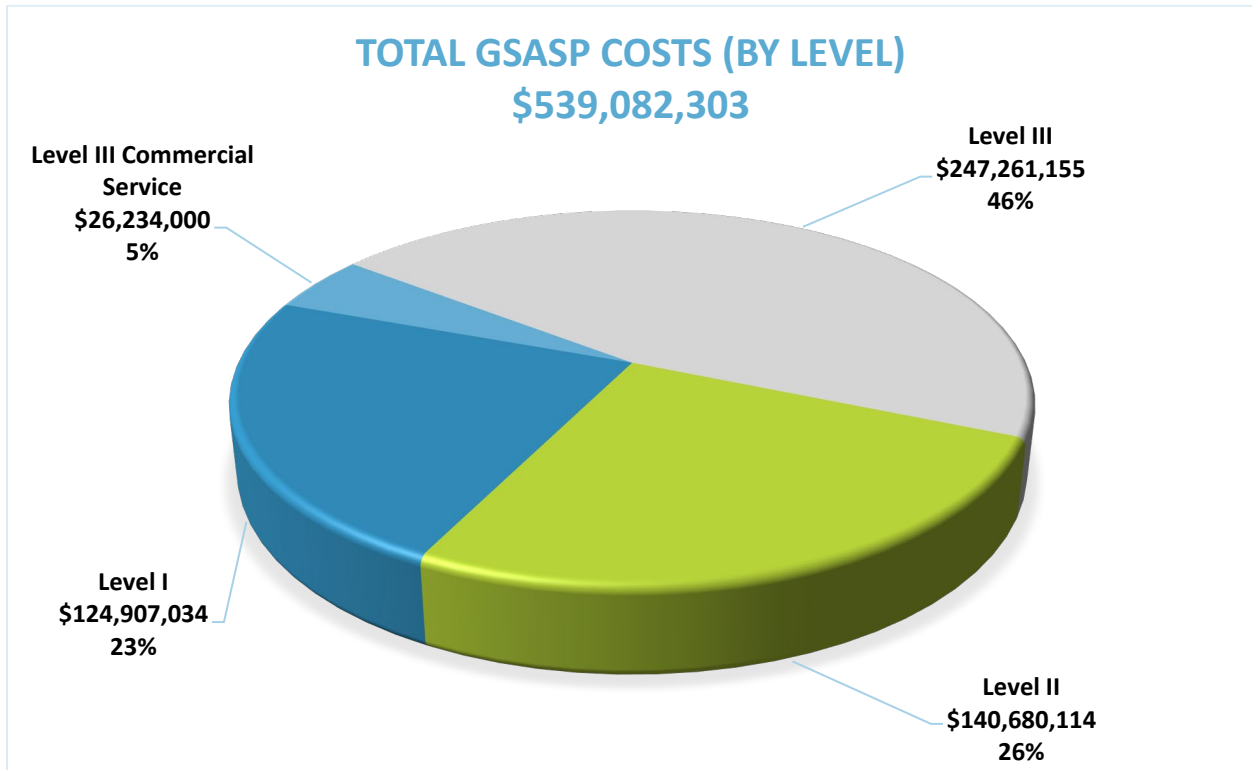
FIGURE 7-1: SYSTEM PLAN COSTS BY PROJECT CATEGORY



Source: Jviation

In addition to the estimated system development costs by project category, a summary of estimated costs by airport level (Level III - Commercial Service, Level III - General Aviation, Level II, Level I) was developed and is shown in **Figure 7-2**. This graphic was developed with airport-specific projects from the system plan costs summarized by project category, as shown in **Table 7-3**. As shown in **Figure 7-2**, Level III - General Aviation airports have the largest share of estimated costs associated with GSASP recommendations, followed by airports in Level II, Level I, and Level III - Commercial Service. Because Georgia’s commercial airports are developed to meet the needs of most commercial carriers, their additional development needs are limited related to meeting objectives established by the GSASP. System plan facility objectives are focused primarily on meeting the needs of general aviation users.

FIGURE 7-2: SYSTEM PLAN PROJECT COSTS BY LEVEL



Source: Jviation

#### 7.4.2 Other Development Costs for System Airports

Recommended GSASP projects represent only a portion of the total development and maintenance costs that Georgia airports could require in the near term. In order to have a better picture of total investment needs for Georgia’s airport system, projects identified in each airport’s current CIP and in the 2012 GDOT Statewide Airfield Pavement Management Study were also considered. In addition, the costs identified as part of this study’s RPZ analysis were also considered. While CIP costs have been included for consideration in this analysis, it is worth re-stating that CIP requests are unvetted and often reflect an optimistic/unconstrained level of development.

Current CIPs were reviewed to provide GDOT with a general understanding of what projects are already being considered on the local level that would address deficiencies noted in the GSASP. A review was performed to ensure project costs were not duplicated between the GSASP and current CIP projects for each airport. Projects in the Georgia Statewide Airfield Pavement Management Study were also reviewed to determine if any of the recommendations from that study are already included in an airport’s current CIP. The combined costs from all sources provide a more holistic picture of anticipated financial needs.

#### *Costs Associated with Pavement Maintenance Projects*

The 2012 GDOT Statewide Airfield Pavement Management Study identified maintenance, repair, and rehabilitation projects needed to sustain functional pavements at Georgia’s airports over a five-year period. While some of the projects identified in the 2012 Airfield Pavement Management Study have been completed, others have not. Those projects and their associated costs were identified as additional costs to be considered as part of the GSASP’s recommendations. **Table 7-4** presents a summary of pavement maintenance costs for

system airports by project category and airport level, as identified in the 2012 Statewide Airfield Pavement Management Study. As shown in the table, pavement projects require significant investment, totaling more than \$275 million. Runway projects account for the largest share of the pavement-related costs, followed apron projects, and taxiway projects. By system level, Level III general aviation airports have the highest estimated costs, followed by Level III Commercial Service, Level II, and Level I airports.

Actual costs related to improving and maintaining the condition of pavement at Georgia airports could be more than the \$275 million shown in the table. GDOT undertook an update to its Statewide Airfield Pavement Management Study in 2018. It is anticipated the costs associated with maintaining runways, taxiways, and aprons at the airports could be higher than the current estimate of \$275 million.

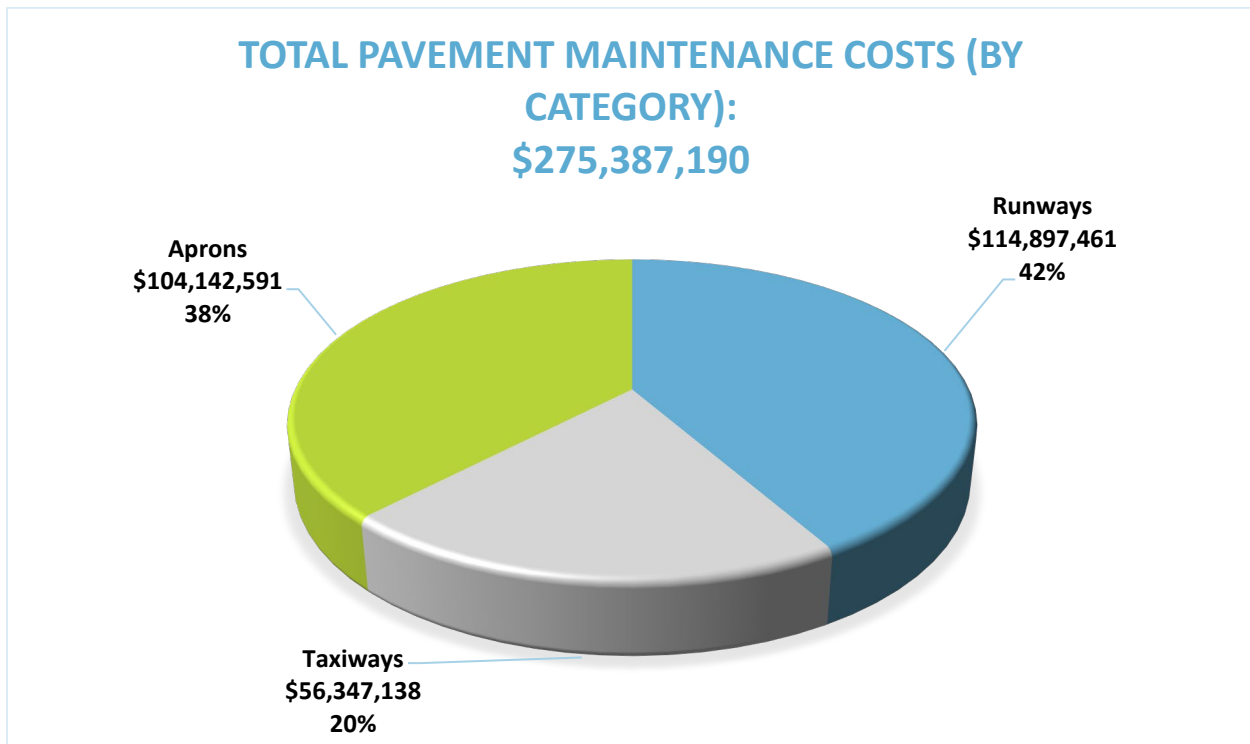
TABLE 7-4: SUMMARY OF PAVEMENT COSTS BY PROJECT CATEGORY AND LEVEL

Project Category	Level III Commercial Service	Level III	Level II	Level I	Total	Percentage of Total
Runways	\$34,563,449	\$56,256,889	\$13,357,058	\$10,720,065	\$114,897,461	42%
Taxiways	\$17,657,139	\$29,582,769	\$7,378,214	\$1,729,016	\$56,347,138	20%
Aprons	\$34,016,932	\$52,921,657	\$9,359,607	\$7,844,395	\$104,142,591	38%
<b>Total</b>	<b>\$86,237,520</b>	<b>\$138,761,315</b>	<b>\$30,094,879</b>	<b>\$20,293,476</b>	<b>\$275,387,190</b>	<b>100%</b>
<b>Percentage of Total</b>	<b>31%</b>	<b>50%</b>	<b>11%</b>	<b>7%</b>	<b>100%</b>	

Source: Jviation

Figure 7-3 and Figure 7-4 graphically depict the share of pavement-related costs by project category and system airport level.

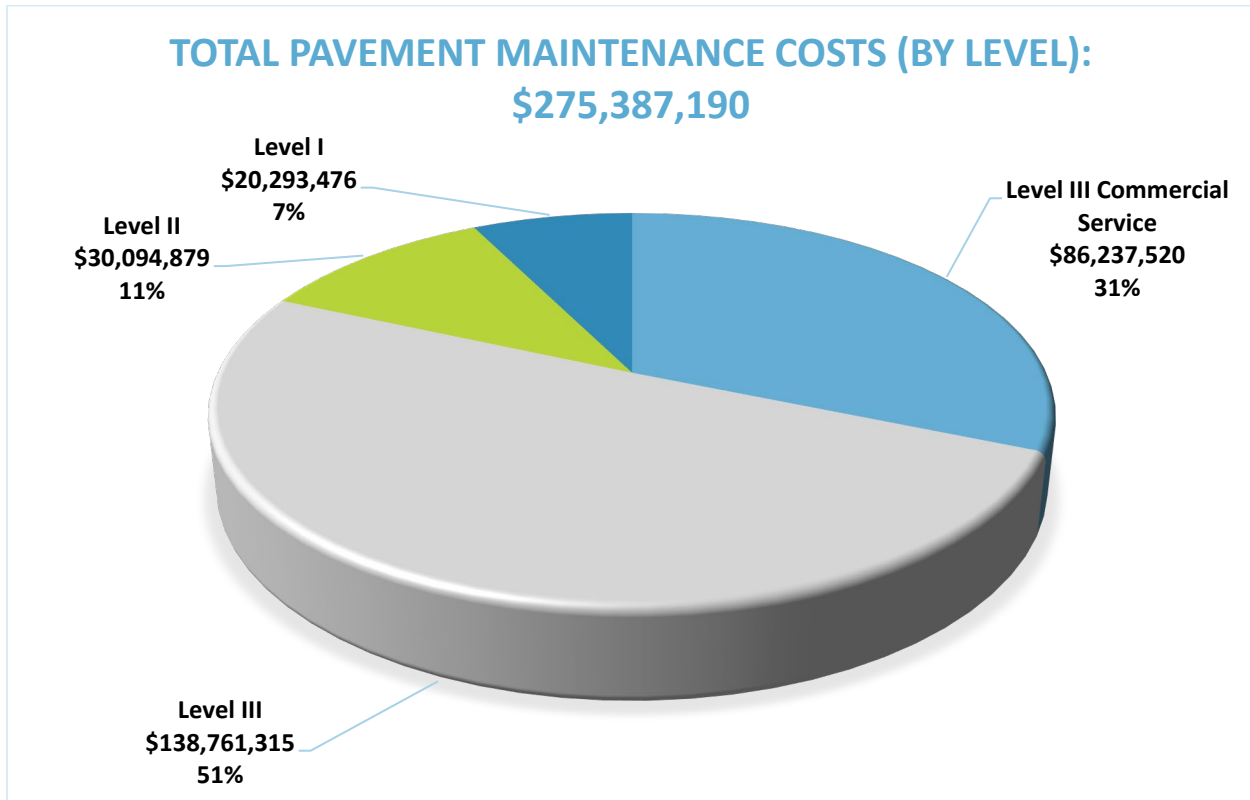
FIGURE 7-3: PAVEMENT COSTS BY PROJECT CATEGORY



Source: Jviation



FIGURE 7-4: PAVEMENT COSTS BY AIRPORT LEVEL



Source: Jviation

### *Costs Associated with Airport CIP Projects*

A summary of CIP project costs for all system airports (as most recently reported to GDOT) is presented in **Table 7-5**. As shown in the table, if fully implemented, CIP projects for system airports would require investment totaling nearly \$713 million over the next five years; on average, \$142.5 million per year could be required to fund all existing CIPs. By CIP project category, taxiway projects make up the largest share of costs, followed by hangar projects, runway projects, apron projects, and RPZ projects (acquisitions, relocations, and easements). The remaining 11 project categories each represent less than 10 percent of the total cost. By system level, Level III - Commercial Service airports represent the largest share of CIP costs, followed by Level III – General Aviation, Level II, and Level I airports. CIP costs are in addition to those costs identified to address deficiencies noted by the GSASP. The CIP costs often represent an optimum level of airport development. CIP costs included here have not been vetted or approved by GDOT; they are included for reference to provide a more holistic view of funding that could be requested for Georgia airports in the coming years. If an airport had a project in its CIP that was also recommended in the GSASP, that project was incorporated into the GSASP recommendations and costs and was removed from the CIP.

TABLE 7-5: PAVEMENT COSTS BY PROJECT CATEGORY AND AIRPORT LEVEL

Project Category	Level III Commercial Service	Level III	Level II	Level I	Total	Percentage of Total
Runways	\$36,569,736	\$11,590,249	\$35,246,667	\$7,545,000	\$90,951,652	13%
Taxiways	\$35,409,831	\$55,491,034	\$11,871,455	\$18,243,667	\$121,015,987	17%

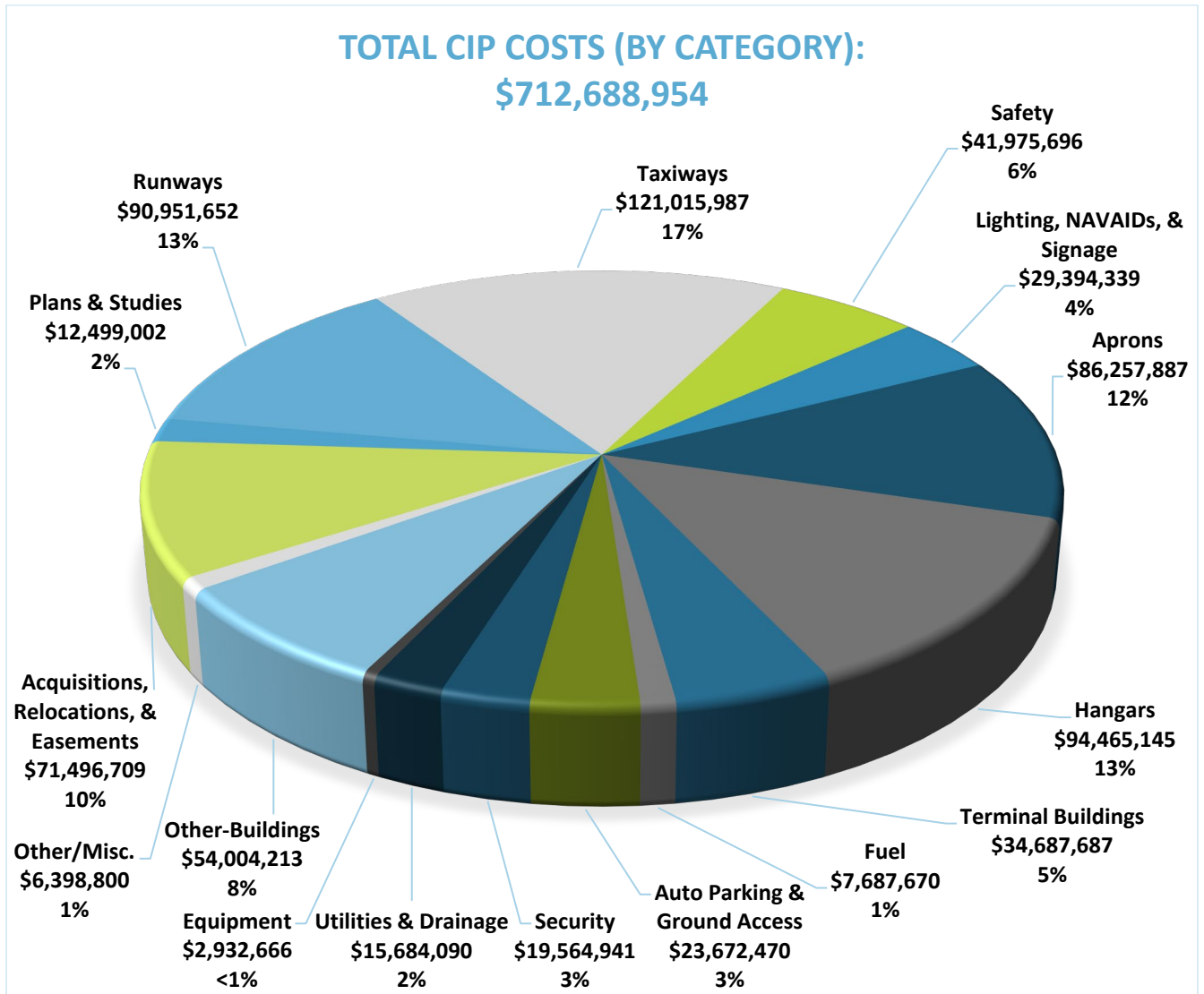
TABLE 7-5: PAVEMENT COSTS BY PROJECT CATEGORY AND AIRPORT LEVEL

Project Category	Level III Commercial Service	Level III	Level II	Level I	Total	Percentage of Total
Safety	\$8,928,555	\$20,830,656	\$7,988,874	\$4,227,611	\$41,975,696	6%
Lighting, NAVAIDs, & Signage	\$10,438,145	\$10,842,111	\$5,727,251	\$2,386,832	\$29,394,339	4%
Aprons	\$28,683,243	\$32,813,114	\$16,815,530	\$7,946,000	\$86,257,887	12%
Hangars	\$13,027,080	\$47,720,110	\$21,581,320	\$12,136,635	\$94,465,145	13%
Terminal Buildings	\$28,535,687	\$287,000	\$4,665,000	\$1,200,000	\$34,687,687	5%
Fuel	\$1,500,000	\$2,287,500	\$2,096,000	\$1,804,170	\$7,687,670	1%
Auto Parking & Ground Access	\$6,005,470	\$12,860,000	\$4,267,000	\$540,000	\$23,672,470	3%
Security	\$16,029,940	\$166,667	\$2,968,334	\$400,000	\$19,564,941	3%
Utilities & Drainage	\$8,145,090	\$4,834,000	\$1,717,000	\$988,000	\$15,684,090	2%
Equipment	\$2,932,666	\$0	\$0	\$0	\$2,932,666	<1%
Other-Buildings	\$53,549,213	\$390,000	\$65,000	\$0	\$54,004,213	8%
Other/Misc.	\$4,878,000	\$1,311,800	\$25,000	\$184,000	\$6,398,800	1%
Acquisitions, Relocations, & Easements	\$16,430,000	\$32,878,444	\$17,897,412	\$4,290,853	\$71,496,709	10%
Plans & Studies	\$2,953,287	\$5,111,366	\$2,726,349	\$1,708,000	\$12,499,002	2%
<b>Total</b>	<b>\$274,015,943</b>	<b>\$239,414,052</b>	<b>\$135,658,192</b>	<b>\$63,600,768</b>	<b>\$712,688,954</b>	<b>100%</b>
<b>Percentage of Total</b>	<b>38%</b>	<b>34%</b>	<b>19%</b>	<b>9%</b>	<b>100%</b>	

Source: Jviation

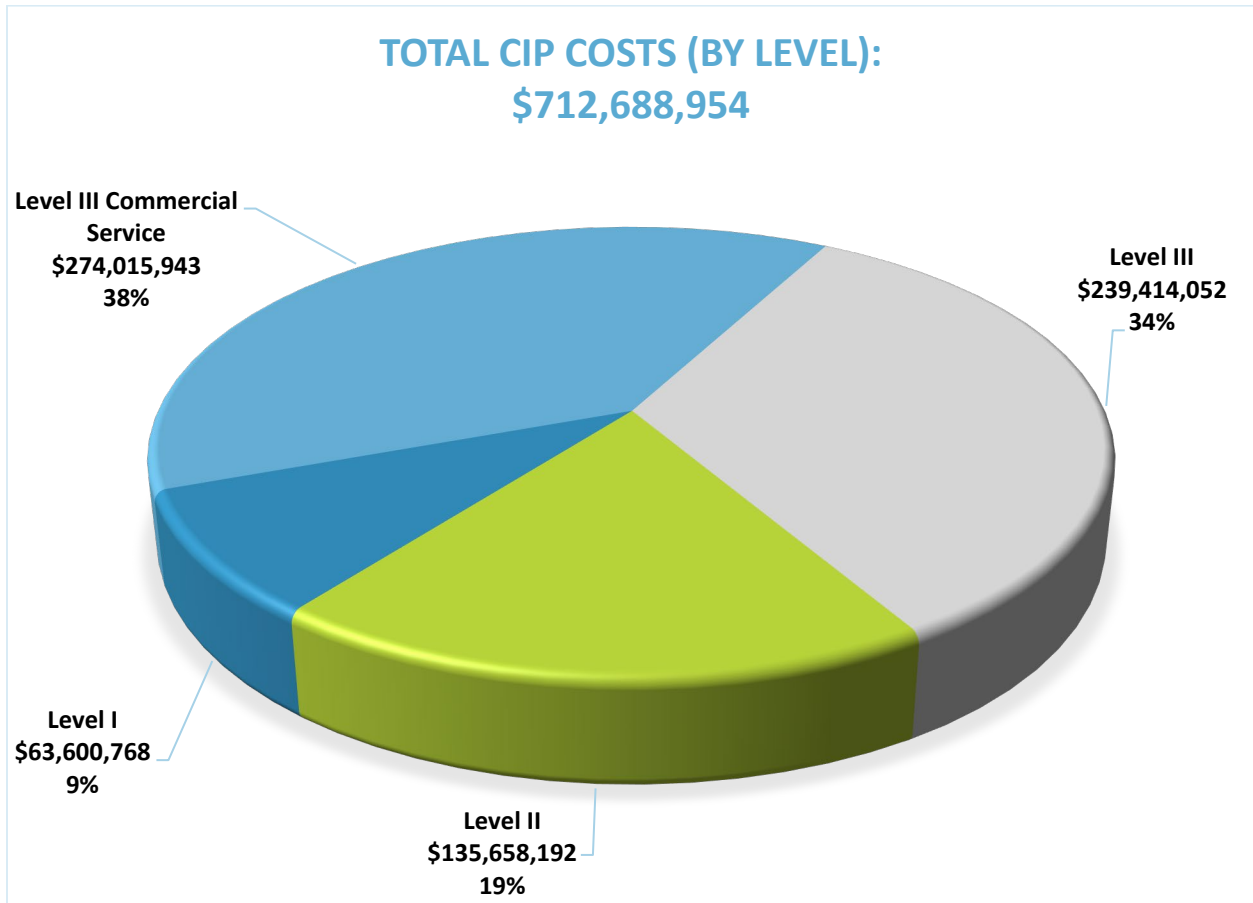
Figure 7-5 and Figure 7-6 graphically depict the share of CIP-related costs by project category and airport level.

FIGURE 7-5: CIP COSTS BY PROJECT CATEGORY



Source: Jviation

FIGURE 7-6: CIP COSTS BY LEVEL



Source: Jviation

### Costs Associated with Runway Protection Zones (RPZs)

A summary of RPZ costs for all system airports is presented in **Table 7-6**. These costs were developed as part of a GSASP task that identified actions and associated costs that would be required for all airports to have control for their respective RPZs through ownership or easements. Costs to bring all RPZs under the control of system airports could require investment totaling over \$283.5 million. RPZ projects generally consist of acquisitions, relocations, and easements. By project category, residential/commercial property acquisitions make up the largest share of costs, followed by other acquisition, road relocations, and railroad relocations. By system level, Level III - General Aviation airports represent the largest share of RPZ mitigation costs, followed by Level III - Commercial Service airports, Level II airports, and Level I airports.

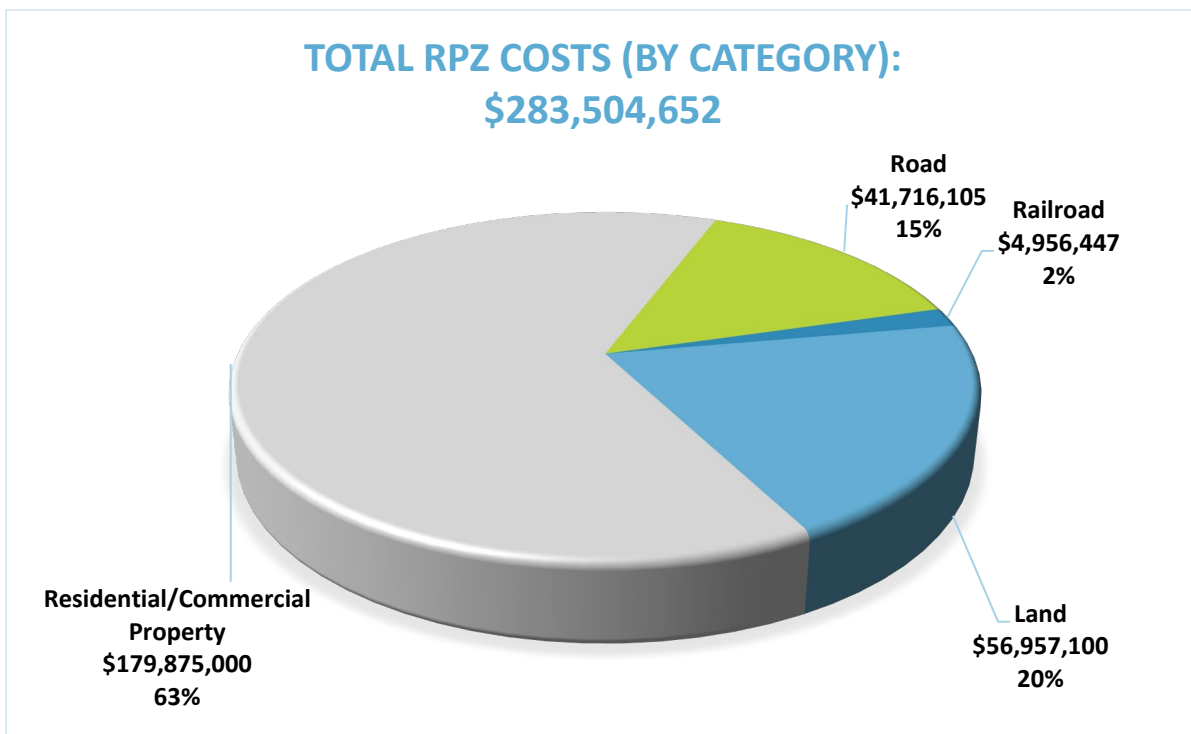
TABLE 7-6: SUMMARY OF RPZ COSTS BY PROJECT CATEGORY AND LEVEL

Project Category	Level III Commercial Service	Level III	Level II	Level I	Total	Percentage of Total
Land	\$13,030,000	\$33,695,400	\$6,459,700	\$3,772,000	\$56,957,100	20%
Residential/Commercial Property	\$35,750,000	\$82,250,000	\$41,500,000	\$20,375,000	\$179,875,000	63%
Road	\$8,767,827	\$19,922,981	\$7,903,483	\$5,121,814	\$41,716,105	15%
Railroad	\$1,473,545	\$2,658,127	\$824,775	\$0	\$4,956,447	2%
<b>Total</b>	<b>\$59,021,372</b>	<b>\$138,526,508</b>	<b>\$56,687,958</b>	<b>\$29,268,814</b>	<b>\$283,504,652</b>	<b>100%</b>
<b>Percentage of Total</b>	<b>21%</b>	<b>49%</b>	<b>20%</b>	<b>10%</b>	<b>100%</b>	

Source: Jviation

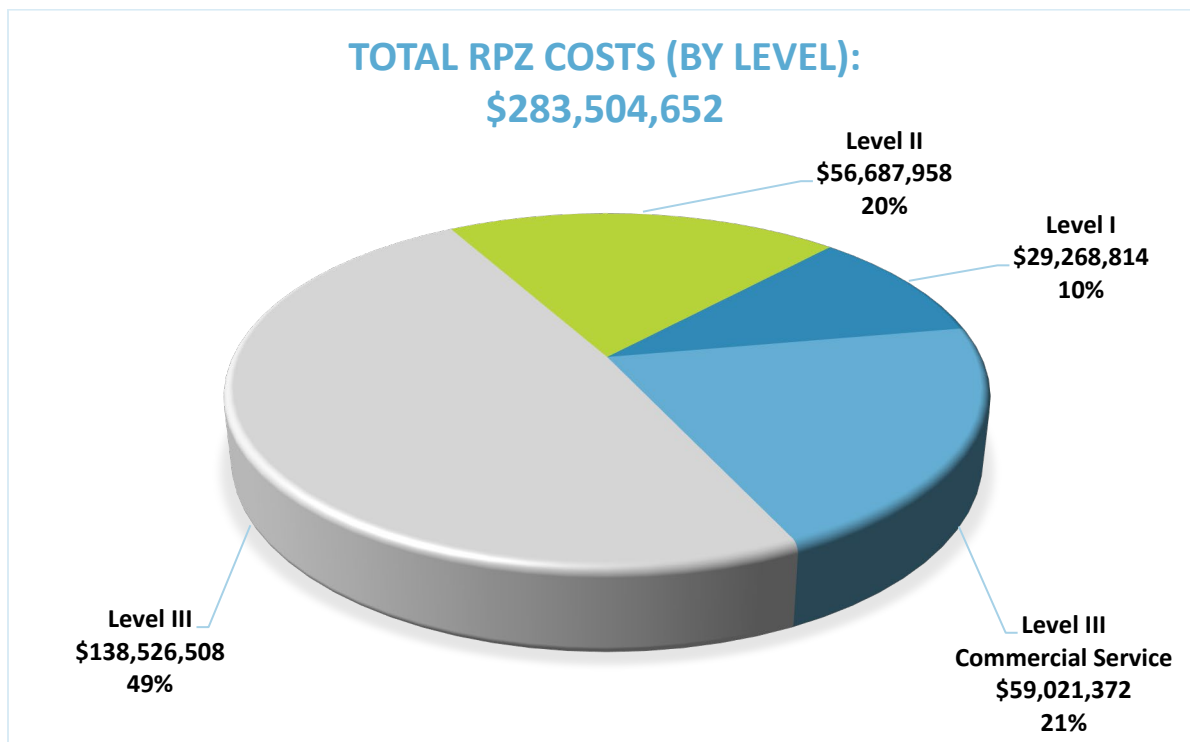
**Figure 7-7** and **Figure 7-8** graphically depict the share of RPZ-related costs by project category and system level.

FIGURE 7-7: RPZ COSTS BY PROJECT CATEGORY



Source: Jviation

FIGURE 7-8: RPZ COSTS BY LEVEL



Source: Jviation

### *Costs Associated with Additional or Replacement Airports*

There are three initiatives currently underway in Georgia that could lead to additional or replacement airports. The GSASP identified an area north of Atlanta that could benefit from an additional Level III airport. Dawson and Forsyth counties are in the identified accessibility void. Preliminary work has been completed to identify costs that could be incurred to develop a public airport facility to serve the Dawson/Forsyth county area. Preliminary costs identified during the Dawson/Forsyth County Airport Study (conducted in conjunction with the GSASP) to provide an additional Level III airport are shown in **Table 7-7**. It is possible, not determined at this time, that the additional public airport could be a private airport that is upgraded and converted to public ownership.

Griffin-Spaulding County Airport is on the path to being moved to a new location. This airport’s current location is constrained, making it difficult for the airport to fulfill its role in the federal and state airport system. A replacement site has been identified and is in the process of being developed; development at the replacement site will continue over the next several years. The cost for redeveloping this airport at the replacement site is estimated at \$82.5 million.

On September 14, 2017, St. Marys Airport in southeast Georgia closed. Work has been undertaken by GDOT to identify sites in the Camden/Charlton county area that are technically suitable for a replacement airport. Until a final site is identified, the cost for a replacement airport in southeast Georgia remains in flux. Information from the GDOT analysis on a range of costs that might be expected for a replacement airport were considered to provide a “placeholder” for possible costs for this replacement airport. According to analysis completed to date, costs for a replacement airport in this part of Georgia could reach \$78 million.

TABLE 7-7: ADDITIONAL OR REPLACEMENT AIRPORT COSTS

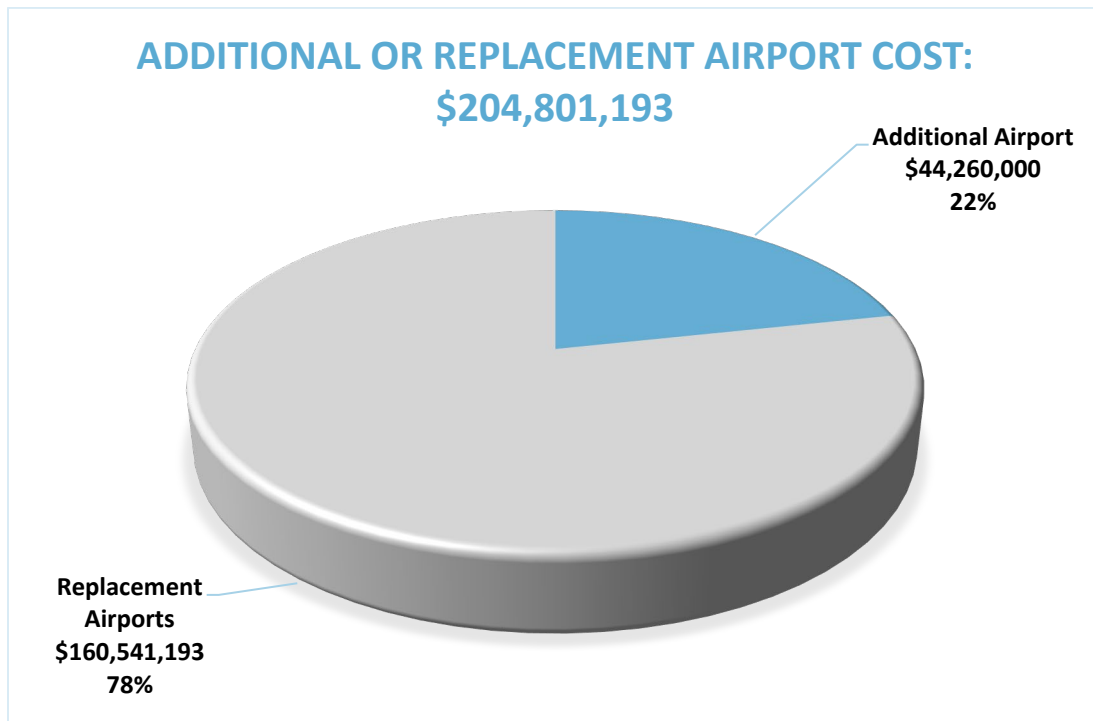
Project Category	Total	Percentage of Total
Additional Airport	\$44,260,000	22%
Replacement Airports	\$160,541,193	78%
<b>Total</b>	<b>\$204,801,193</b>	<b>100%</b>

Source: Dawson/Forsyth County Airport Study 2017, Griffin-Spalding County Airport CIP FY 2017-2021, Southeast Georgia Airport Replacement Study February 2018

As shown in **Table 7-7**, it is estimated that an additional airport could cost approximately \$44 million, while the two replacement airports would cost roughly \$160 million, for a total of nearly \$205 million.

**Figure 7-9** graphically depicts the estimated cost of one additional and two replacement airports in Georgia.

FIGURE 7-9: ADDITIONAL OR REPLACEMENT AIRPORT COSTS



Source: Jviation

### 7.4.3 Combined Estimated Development Costs

Combining all cost estimates (GSASP objectives, RPZ control, pavement maintenance projects, and airport CIPs) results in total development costs of nearly \$2.02 billion over the next five years. **Table 7-8** presents a summary of the combined development costs by project category and airport level.

As shown in **Table 7-8**, the largest share of costs is for runways and taxiways, followed by acquisitions, relocations and easements, pavement maintenance projects, and additional/replacement airports. The remaining 10 project categories each represent less than ten percent of the total cost. By system level, Level III - General Aviation airports represent the largest share of combined development costs, followed by Level III - Commercial Service, Level II, and Level I airports.



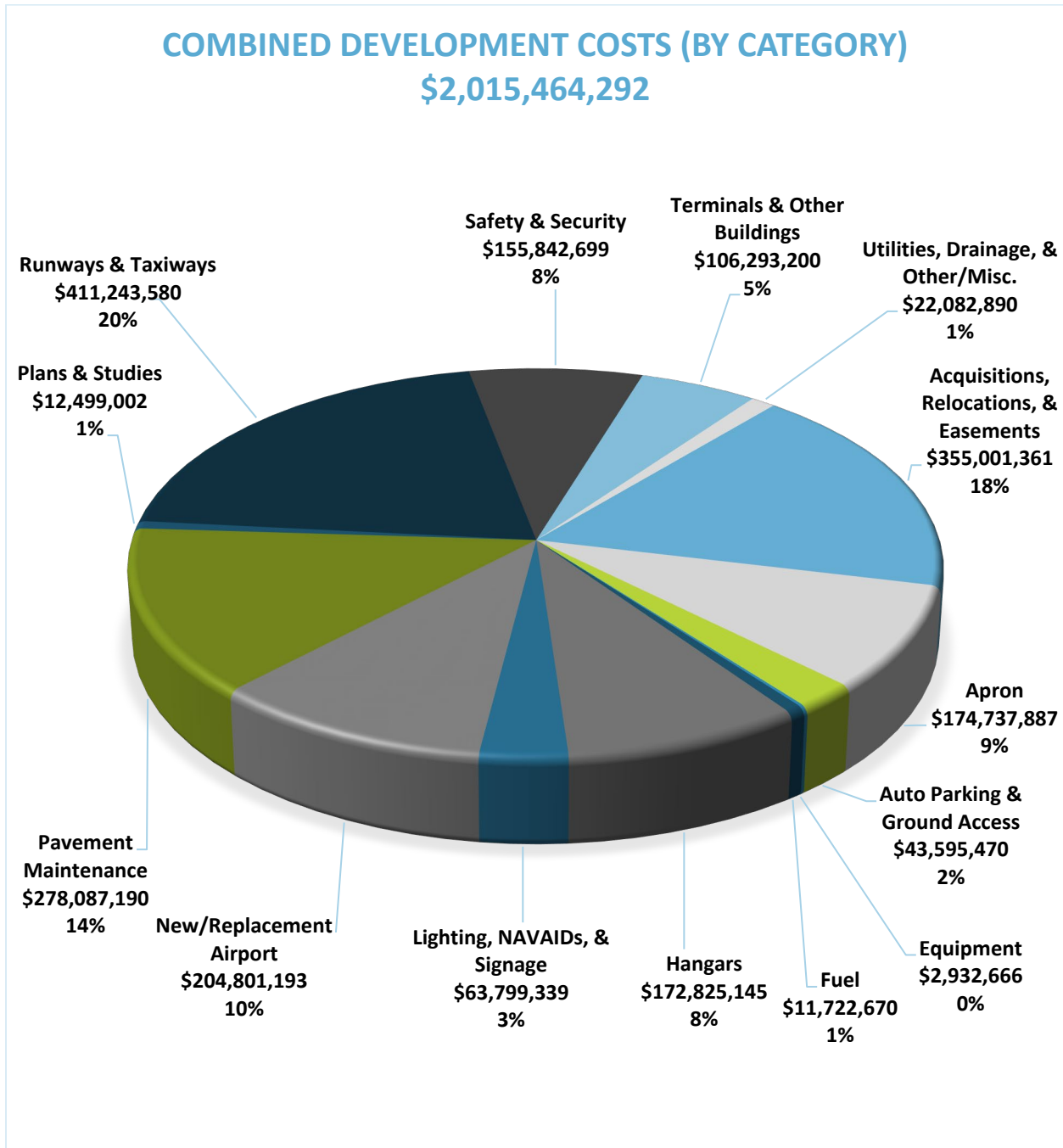
TABLE 7-8: SUMMARY OF COMBINED DEVELOPMENT COSTS BY PROJECT CATEGORY AND LEVEL

Project Category	Level III Commercial Service	Level III	Level II	Level I	Total	Percentage of Total
Acquisitions, Relocations, & Easements	\$75,451,372	\$171,404,952	\$74,585,370	\$33,559,667	\$355,001,361	18%
Aprons	\$38,023,243	\$80,503,114	\$38,275,530	\$17,936,000	\$174,737,887	9%
Auto Parking & Ground Access	\$7,699,470	\$23,968,000	\$9,412,000	\$2,516,000	\$43,595,470	2%
Equipment	\$2,932,666	\$0	\$0	\$0	\$2,932,666	0%
Fuel	\$1,500,000	\$2,287,500	\$2,096,000	\$5,839,170	\$11,722,670	1%
Hangars	\$28,077,080	\$105,820,110	\$24,981,320	\$13,946,635	\$172,825,145	9%
Lighting, NAVAIDs, & Signage	\$10,588,145	\$30,212,111	\$12,747,251	\$10,251,832	\$63,799,339	3%
Additional/Replacement Airports	\$0	\$204,801,193	\$0	\$0	\$204,801,193	10%
Pavement Maintenance	\$86,237,520	\$140,961,315	\$30,094,879	\$20,793,476	\$278,087,190	14%
Plans & Studies	\$2,953,287	\$5,111,366	\$2,726,349	\$1,708,000	\$12,499,002	1%
Runways & Taxiways	\$71,979,567	\$105,241,283	\$122,400,663	\$111,622,067	\$411,243,580	20%
Safety & Security	\$24,958,495	\$90,197,978	\$28,322,281	\$12,363,945	\$155,842,699	8%
Terminals & Other Buildings	\$82,084,900	\$2,109,500	\$15,737,500	\$6,361,300	\$106,293,200	5%
Utilities, Drainage, & Other/Misc.	\$13,023,090	\$6,145,800	\$1,742,000	\$1,172,000	\$22,082,890	1%
<b>Total</b>	<b>\$445,508,835</b>	<b>\$968,764,223</b>	<b>\$363,121,143</b>	<b>\$238,070,092</b>	<b>\$2,015,464,292</b>	<b>100%</b>
<b>Percentage of Total</b>	<b>22%</b>	<b>48%</b>	<b>18%</b>	<b>12%</b>	<b>100%</b>	

Source: Jviation

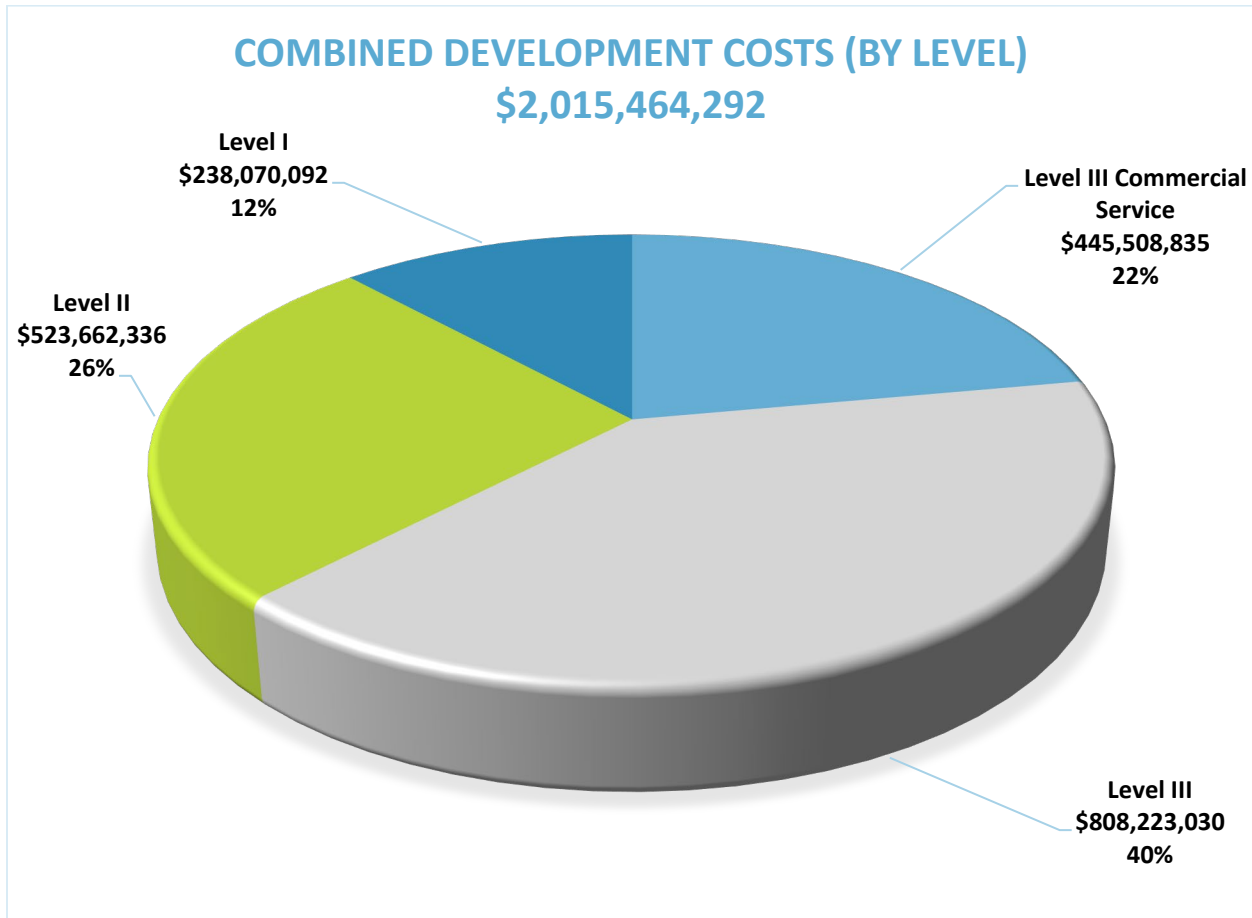
Figure 7-10 and Figure 7-11 graphically depict the share of combined development costs by project category and system level.

FIGURE 7-10: COMBINED DEVELOPMENT COSTS BY PROJECT CATEGORY



Source: Jviation

FIGURE 7-11: COMBINED DEVELOPMENT COSTS BY LEVEL



Source: Jviation

**Table 7-9** presents a summary of the combined development costs identified by level and plan. As shown, costs associated with GSASP recommendations make up the second largest share with 27 percent of the total. CIP project costs represent the largest share with 35 percent, while both RPZ project costs and pavement maintenance projects make up 14 percent of the total estimated development costs over the next five years. Additional and/or replacement airport costs represent the smallest share with 10 percent of the total cost. It is worth noting that any duplication in projects between the source documents was removed, as possible. When just GSASP-related projects (projects to meet facility/service objectives, projects to resolve RPZ control issues, projects to address pavement maintenance needs, and additional/replacement airports) are considered, total costs decrease from an estimated \$2.02 billion to \$1.3 billion.

TABLE 7-9: SUMMARY OF COMBINED DEVELOPMENT COSTS BY LEVEL AND PLAN

Plan	Level III Commercial Service	Level III	Level II	Level I	Total	Percentage of Total
Facility/Service/System Plan Projects	\$26,234,000	\$247,261,155	\$140,680,114	\$124,907,034	\$539,082,303	27%
Runway Protection Zone Mitigation Projects	\$59,021,372	\$138,526,508	\$56,687,958	\$29,268,814	\$283,504,652	14%
Major Pavement Maintenance Projects	\$86,237,520	\$138,761,315	\$30,094,879	\$20,293,476	\$275,387,190	14%

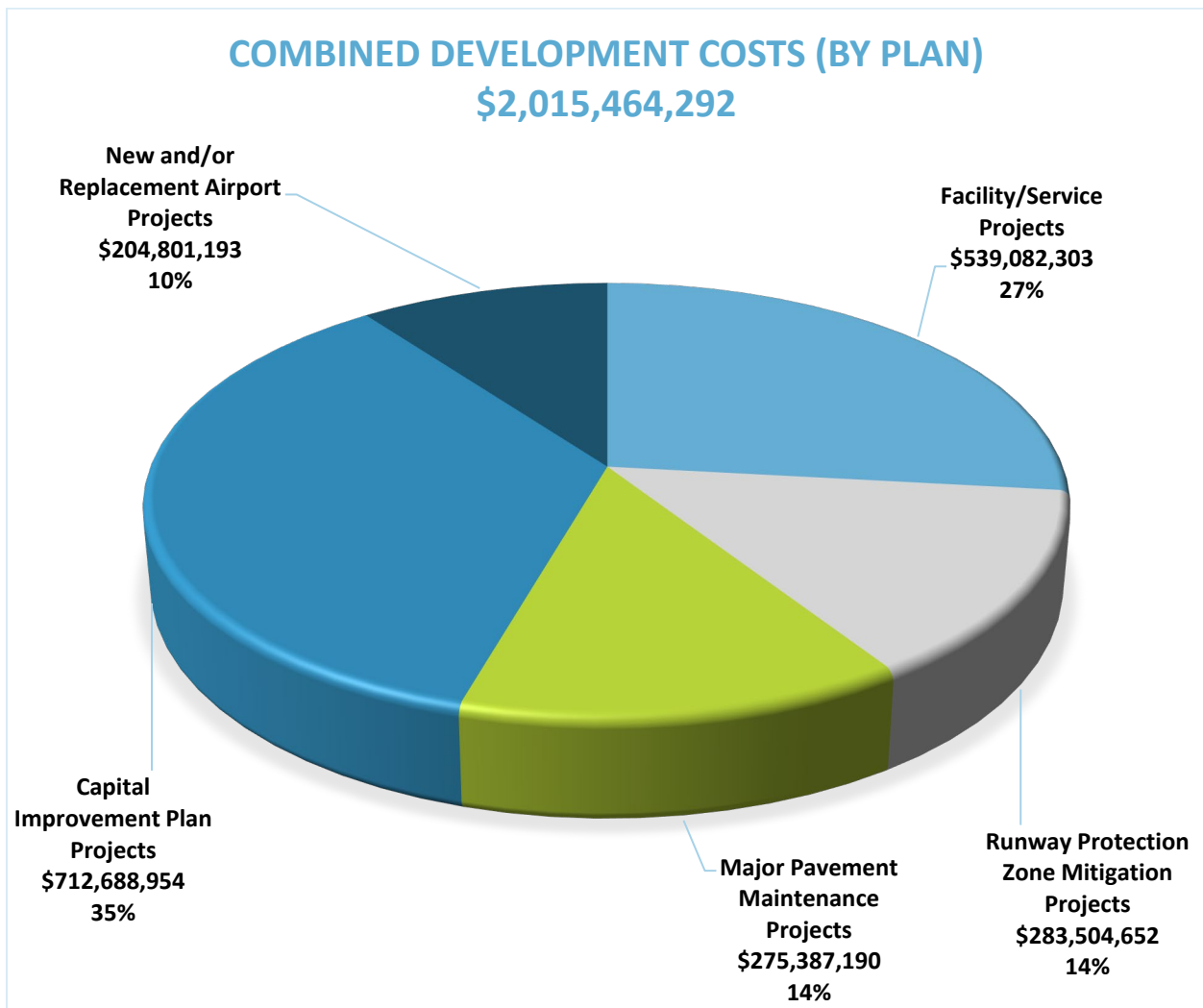
TABLE 7-9: SUMMARY OF COMBINED DEVELOPMENT COSTS BY LEVEL AND PLAN

Plan	Level III Commercial Service	Level III	Level II	Level I	Total	Percentage of Total
Capital Improvement Plan Projects	\$274,015,943	\$239,414,052	\$135,658,192	\$63,600,768	\$712,688,954	35%
Additional or Replacement Airport Projects	\$0	\$44,260,000	\$160,541,193	\$0	\$204,801,193	10%
<b>Total</b>	<b>\$445,508,835</b>	<b>\$808,223,030</b>	<b>\$523,662,336</b>	<b>\$238,070,092</b>	<b>\$2,015,464,292</b>	<b>100%</b>
<b>Percentage of Total</b>	<b>22%</b>	<b>40%</b>	<b>26%</b>	<b>12%</b>	<b>100%</b>	

Source: Jviation

Figure 7-12 depicts the share of development costs by plan.

FIGURE 7-12: COMBINED DEVELOPMENT COSTS BY PLAN



Source: Jviation

### 7.4.4 Average Annual Development Cost

As previously stated, the combined unconstrained budget development costs for all system airports are estimated at over \$2 billion over five years. When just GSASP projects are considered and projects from the airport-specific CIPs are removed, this sum decreases to \$1.3 billion. On an average annual basis, the estimated development cost for projects is \$403 million, while the average annual five-year cost for just the GSASP projects is estimated at \$261 million.

It is worth noting that since GDOT does not always participate in funding for the primary commercial airports, the actual financial need for the commercial airports in Georgia is most likely significantly higher than the estimate presented here. The estimated commercial airport funding need does not include any costs for Hartsfield-Jackson Atlanta International. **Table 7-10** presents the average annual development need by airport type as derived from the system plan, and considers costs for all projects related to the GSASP as well as those listed in airport-specific CIPs.

As previously mentioned, projects contributing to the cost estimates presented in this chapter are available in the airport Report Cards provided in **Appendix B**. Each airport’s Report Card shows individual airport projects and costs by source (GSASP, CIP, RPZ mitigation, and Statewide Airfield Pavement Maintenance Study).

TABLE 7-10: AVERAGE ANNUAL DEVELOPMENT NEED

Airports	All System Plan and CIP Projects 5-Year Average Cost	Percentage of Total	5-Year Average Cost (Excluding CIP)	Percentage of Total
General Aviation Airports	\$313,991,092	78%	\$226,256,489	87%
Commercial Service	\$89,101,767	22%	\$34,298,578	13%
<b>All Airports</b>	<b>\$403,092,858</b>	<b>100%</b>	<b>\$260,555,068</b>	<b>100%</b>

Source: Jviation

## 7.5 Funding

The previous sections of this chapter discuss costs associated with accomplishing the GSASP recommendations as well as costs to accomplish all projects requested by all airports in their individual airport CIPs. It is important to review typical sources of airport funding and to identify any gap between needed and available funds.

Airport projects in Georgia are accomplished through a combination of federal (FAA), state, and local funding. In general, airports that are eligible for FAA and state funding must be available for public use (i.e. not encumbered by an exclusive-use agreement), and are required to meet FAA design standards. Airports eligible for FAA funds must also be included in the NPIAS. Projects that are eligible for state and federal funding are subject to both state and FAA priority rankings considerations, grant assurances, and funding availability. FAA Order 5100.38D from the Airport Improvement Program (AIP) Handbook presents a detailed list of projects that are and are not eligible for FAA funding. In Georgia, there are only six airports that are funded with only state and local investment. The remaining system airports are currently eligible to compete for FAA funding.

### 7.5.1 Federal Funding

The last three fiscal years of FAA funds to Georgia are shown in **Table 7-11**. On average over the past three years, the state received an average of about \$80 million in federal AIP funding, with an average of almost \$33 million being administered through Aviation Programs via the State-Block Grant Program.

TABLE 7-11: FEDERAL FUNDING FOR GEORGIA AIRPORTS

Fiscal Year	2015	2016	2017	Three-Year Average
Total Funding	\$70,148,895.00	\$94,302,041.00	\$75,442,142.00	\$79,964,359.33
Hartsfield-Jackson Atlanta International Airport	\$19,050,802.00	\$44,991,495.00	\$33,995,235.00	\$32,679,177.33
Primary Airport Grants	\$9,183,472.00	\$22,499,948.00	\$11,276,119.00	\$14,319,846.33
State-Block Grant Program Funds	\$41,914,621.00	\$26,810,598.00	\$30,170,788.00	\$32,965,335.67

Source: GDOT

### 7.5.2 State Funding for Georgia Airports

Georgia’s funding program helps support the allocation of federal funds and typically pays 50 percent of the non-federal share of eligible project costs. If FAA funding covers 90 percent of a project, the state funding typically covers five percent and local funds the remaining five percent. Currently, if requested, the state participates in the 50 percent non-federal share of projects at all airports except Hartsfield-Jackson Atlanta International Airport.

In addition, the state supports a state/local project program for projects/airports that are not eligible for FAA funds or do not score well from a federal AIP priority funding perspective. These projects are typically funded at 75 percent by the state and 25 percent from local funds. The state aviation program budget has grown significantly over the last five years, from just under \$2 million in 2013 to just over \$13 million in 2016 and 2017. Since state funding has leveled off at around \$13 million, this report used this number as the anticipated budget to consider funding deficiencies. Of the available \$13 million in state funding, an average of roughly \$2.6 million goes towards paying the five percent state match on federal grants.

### 7.5.3 Total Estimate Yearly Funding for Georgia Airports

The costs shown in this chapter take into account costs that could be experienced over the next five years. To determine a potential budget surplus/shortfall, the average federal funding over the last three fiscal years was considered, as was the \$13 million in the state airport aid program. As **Table 7-12** shows, an average of \$63.7 million could be available (considering historic funding levels) to meet the airport development needs identified by this analysis.

TABLE 7-12: ANTICIPATED AVERAGE ANNUAL FEDERAL AND STATE FUNDING FOR GEORGIA AIRPORTS

<b>Federal Program (90%, 5%, 5%)</b>	
– Federal Funds	\$47,285,182.00
– State Matching Funds	\$2,626,954.56
– Local Funds	\$2,626,954.56
<b>Total Federal Program</b>	<b>\$52,539,091.11</b>
<b>State Program (75%, 25%)</b>	
– State Funds	\$8,373,045.44
– Local Funds	\$2,791,015.15
<b>Total State Program</b>	<b>\$11,164,060.59</b>
<b>Total Aviation Program Funds</b>	<b>\$63,703,151.70</b>

Source: GDOT

#### 7.5.4 Anticipated Costs Versus Anticipated Funding Availability

Table 7-10 shows potential average annual funding needs for commercial (excluding Hartsfield-Jackson Atlanta International) and general aviation airports over the next five years. Considering all GSASP projects without the CIP projects, the annual financial need decreases to \$261 million.

Table 7-10 also shows that average annual needs for commercial airports, at a minimum, will range from \$89 million to \$34 million. Considering just GSASP projects, new/replacement general aviation airports, RPZ mitigation projects, and pavement maintenance needs, annual funding needs for commercial and general aviation airports could reach \$261 million; when compared to the anticipated \$63.7 million annual federal and state funds that could be available to meet this need, it is clear that an annual funding gap can be anticipated.

#### 7.6 Need Versus Benefit

The preceding sections of this chapter detail the estimated costs, or “needs,” identified to improve and maintain Georgia’s airports. Average annual investment to implement system planning projects (minus airport specific CIPs) is estimated at \$261 million.

GDOT’s last statewide economic impact study, completed in 2011 and based on 2010 data, identified an economic impact, or “benefit,” quantified by a measure of total annual economic activity that is supported by the airports and the activities they support. Total annual economic activity (consisting of direct, indirect, and induced impacts) resulting from Georgia’s system airports (excluding Hartsfield-Jackson Atlanta International) was estimated at \$4.4 billion, which far outweighs the \$261 million average annual development cost for the system.

The GSASP provides a comprehensive overview of conditions that characterize the commercial and general aviation airports that comprise the state airport system, and provides an outlook of how aviation demand in the state might grow over the next 20 years. Performance measures were used to establish a baseline for current system performance; in subsequent planning cycles, the measures can be used to show how federal, state, and local investment have raised the bar as it relates to performance as it was documented in the GSASP.

The system was thoroughly evaluated to identify adequacies and deficiencies in system accessibility. Based on this and other analysis, some airports were recommended for a change in their state airport level. The recommended system was documented in **Chapter 5**.





Facility and service objectives by state airport level were analyzed to identify projects considered desirable to raise the performance of Georgia’s airport system. Improvements identified by the GSASP were compared to projects identified in each airport’s most current CIP and in the 2012 Statewide Airfield Pavement Management Study. Ultimately, a Report Card was prepared for each airport that summarizes each airport’s five-year development needs and associated estimated development costs.

Costs identified at the individual airport level were rolled up to reflect statewide airport investment needs that can be expected over the next five years. It is likely that the five-year funding needs identified in this plan are understated and that actual funding requests could top the system plan’s average annual funding estimates. At \$4.4 billion each year in just benefits from the airports, the economic benefit of Georgia’s airport system is significantly greater than the average annual financial need of the system.

Georgia airports are important economic engines, valuable transportation resource, and support countless benefits for the communities they serve. The state, and communities throughout Georgia served by the airport system, receive a positive return for all investment that is made to improve and maintain the state airport system.